AMENDMENTS TO THE CLAIMS

1. (Cancelled)

2. (Cancelled)

3. (Currently Amended) The method according to claim ~~2~~ 20, wherein the gate electrode is formed in step (d) and the gate insulator layer ~~further~~ comprises the hydrogen-containing layer and a second insulating layer formed directly on the semiconductor layer.

4. (Currently Amended) The method according to claim ~~1~~ 20, wherein the gate electrode is formed in step (d), the method further comprising the steps of:

~~(e)~~ (f) removing the hydrogen-containing layer, and

~~(f)~~ (g) forming the gate insulator layer over the semiconductor layer, before step (d).

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Currently Amended) The method according to claim ~~1~~ 20, wherein the semiconductor layer initially comprises amorphous silicon and the energy beam polycrystallises at least part of the semiconductor layer in step (c).

9. (Currently Amended) The electronic device having a thin film transistor, the transistor having a gate electrode and source and drain electrodes, a semiconductor layer being separated from the gate electrode by a gate insulator layer, and the gate electrode being arranged to control current flow through a channel region of the semiconductor layer between the source and drain electrodes, wherein the electronic device is manufactured according to a ~~the~~ method ~~of claim 1~~ comprising the steps of:

(a) forming the semiconductor layer over a substrate;

(b) forming a hydrogen-containing layer over the semiconductor layer;

(c) irradiating the hydrogen-containing layer with an energy beam to hydrogenate at least part of the semiconductor layer, wherein the hydrogen diffuses from the hydrogen-containing layer into the semiconductor layer; and then

(d) forming the gate electrode over/under the semiconductor layer,

wherein the gate insulator layer comprises the hydrogen-containing layer, the semiconductor layer has been patterned to form a semiconductor island, the gate insulator layer comprising a first region A overlying the semiconductor island and a second region B disposed laterally to one side of the semiconductor island, and the first region has a hydrogen content lower than that of the second region.

10. (Cancelled)

11. (Currently Amended) The ~~method~~ electronic device according to claim ~~10~~ 9, wherein the gate insulator layer further comprises a second insulating layer formed directly on the semiconductor layer.

12. (Currently Amended) ~~A~~ The method according to claim ~~1~~ 14, further comprising the steps of:

(g) forming at least one of the source electrode and drain electrode over the semiconductor layer, after step (d).

13. (Previously Presented) The method according to claim 12, further comprising the step of:

(h) removing the hydrogen-containing layer.

14. (Currently Amended) A method of manufacturing an electronic device ~~comprising~~ having a thin film transistor, the transistor ~~comprising~~ having a gate electrode and source and drain electrodes, a semiconductor layer being separated from the gate electrode by a gate insulator layer, and the gate electrode being arranged to control current flow through a channel region of the semiconductor layer between the source and drain electrodes, the method comprising the steps of:

(a) forming the semiconductor layer over a substrate;

(b) forming a hydrogen-containing layer over the semiconductor layer;

(c) irradiating the hydrogen-containing layer with an energy beam to hydrogenate at least part of the semiconductor layer; and then

(d) forming at least one of the gate electrode and the source and drain electrodes over the semiconductor layer, wherein the gate insulator layer comprises the hydrogen-containing layer.

15. (Previously Presented) The method according to claim 14, wherein the gate insulator layer further comprises a second insulating layer formed directly on the semiconductor layer.

16. (Previously Presented) The method according to claim 14, wherein said hydrogen-containing layer comprises silicon nitride.

17. (Previously Presented) The method according to claim 14, wherein the semiconductor layer initially comprises amorphous silicon, the method further comprising the step of:

irradiating the semiconductor layer with an energy beam to polycrystallise at least part of the semiconductor layer, before step (c).

18. (Previously Presented) The method according to claim 14, wherein the semiconductor layer initially comprises amorphous silicon and the energy beam polycrystallises at least part of the semiconductor layer in step (c).

19. (Cancelled)

20. (Currently Amended) A method of manufacturing an electronic device ~~comprising~~ having a thin film transistor, the transistor ~~comprising~~ having a gate electrode and source and drain electrodes, a semiconductor layer separated from the gate electrode by a gate insulator layer, the gate electrode being arranged to control current flow through a channel region of the semiconductor layer between the source and drain electrodes, wherein the semiconductor layer initially comprises amorphous silicon, the method comprising the steps of:

(a) forming the semiconductor layer over a substrate;

(b) forming a hydrogen-containing layer over the semiconductor layer;

(c) irradiating the hydrogen-containing layer with an energy beam to hydrogenate at least part of the semiconductor layer;

(d) forming at least one of the gate electrode and the source and drain electrodes over the semiconductor layer; and

(e) irradiating the semiconductor layer with another energy beam to polycrystallise at least part of the semiconductor layer before step (c).

21. (New) The method according to claim 20, further comprising the step of:

(h) forming at least one of the source electrode and drain electrode over the semiconductor layer, after step (d).

22. (New) The method according to claim 21, further comprising the step of:

(i) removing the hydrogen-containing layer.